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AUTHOR Austin, Gregory A., Ed.
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ABSTRACT

This quarterly publication is prepared by the Western Center for Drug-Free Schools and Communities, and summarizes recent research on adolescent drug abuse and its prevention. This issue abstracts and reviews the implications of new research dealing with substance abuse among minority youth, specifically Native Americans. The goal is to help bridge the communications gap between researchers, practitioners, and the general population by disseminating research in an accessible manner and providing an introductory overview. The overview of the abstracted documents discusses minority youth as an at-risk population. The research uniformly demonstrates that substance abuse is widely prevalent among Native American adolescents and even younger children. Alcohol is by far the most widely abused drug among all age groups, with marijuana the next most popular substance for abuse. It is evident that drug prevention programs developed for mainstream youth have had little impact on minorities and that any prevention efforts must overcome several cultural and socioeconomic barriers. Various cultural factors have been studied as being important in increasing the possibility of substance abuse among American Indians. The overview calls for education and intervention programs, suggesting that work be directed toward reducing the number of factors that put Indian youth at risk. The overview is followed by 20 abstracts of published research from 1985 to 1988 arranged alphabetically by author. The document also contains 112 references. (TES)

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Western Center for Drug-Free Schools and Communities

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204

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Prevention Research Update

No. 2 / Winter 1988

Prevention Research Update is a quarterly current awareness service, prepared by the Western Center for Drug-Free Schools and Communities, which summarizes recent research on adolescent drug abuse and its prevention. Each issue abstracts and reviews the implications of new research dealing with a major topic of concern in the field, placing the new information in the context of past findings. The goal is to help bridge the communications gap between the researcher, the practitioner, and the general population by disseminating research findings in an accessible manner and providing an introductory review of their significance. Abstracts are arranged alphabetically by first author's last name. Preceding the abstracts is an overview discussion. References to all documents cited are located following the abstracts. Copies are available from all the Western Center sites, which also maintain reprints of the articles summarized.

Gregory A. Austin, Editor

Western Center for Drug-Free Schools and Communities

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204
(503) 275-9500

Center for the Advancement of Pacific Education
1164 Bishop Street, Suite 1409
Honolulu, Hawaii 96813
(808) 533-1748

Far West Laboratory for Research and Development
1800 Folsom Street
San Francisco, California 94103
(415) 565-3000

SWRL Educational Research and Development
4665 Lampson Avenue
Los Alamitos, California 90720
(213) 598-7661

SUBSTANCE ABUSE AMONG MINORITY YOUTH: NATIVE AMERICANS

INTRODUCTION

This is the first of several issues of the Western Center Prevention Research Update which will abstract and review recent research on minority and other youth at high risk of substance abuse. This issue addresses the problem in general and then focuses specifically on Native Americans.

Several changes in the Update format have been made to improve the publication's utility. First, all studies that are abstracted are identified in the Overview by an asterisk (*). Second, in the References, citations to the abstracted studies have also been included and identified by an asterisk. Following the references, there is a list of the institutional affiliations of the first authors of the abstracted studies and the addresses of other institutional information sources.

OVERVIEW

RISK FACTORS. As discussed in Prevention Research Update #1, it has been argued that prevention efforts would be more effective, and would make more efficient use of scarce resources, if they were primarily targeted at high-risk and heavy-using populations. Underlying this argument is the assumption that individuals at elevated risk of becoming substance abusers are distinct from those at low risk by some characteristic(s). Many of the initiatives of the war on drugs are targeted at identifying and reducing those factors that place people at risk. In 1987, the federal Office of Substance Abuse Prevention (OSAP) awarded 131 grants to develop community-based substance abuse prevention programs directed at groups of high-risk youths. Researchers are equally concerned with identifying and fostering the protective factors that reduce risk (Wells 1988). However, we still know very little about how to identify youth who are potentially at risk so that they can be targeted for intervention. We know even less about protective factors, especially why some youths from high-risk environments fail to develop substance abuse problems.

Progress is beginning in this area. It would appear that alcohol and other drug abusers "may share a number of common characteristics, perhaps pointing to a common basis for the vulnerability" (Tarter 1988:77). Several variables that have predictive value have been successfully identified. These include aggressive and antisocial behavior, lack of interpersonal and social skills, poor classroom achievement, and poor and inconsistent family management practices (Hawkins, Lishner, and Catalano 1985). Population groups of youths that have been shown to be at high risk include the economically disadvantaged, school dropouts, children of alcoholics and other substance abusers, the physically disabled, abused or neglected children, the mentally ill and suicidal, pregnant teenagers, the homeless and runaways, and juvenile delinquents. Protective factors may include the ability to stand away from a troubled parent, a strong self-concept and internal locus of control, skepticism about the parental world view, and at least one good parental relationship (McIntyre and White 1988).

Bell (1988*) has devised a multivariate analysis strategy to identify more systematically high-risk individuals located in high-risk areas. He stresses that different types of programs may be more suitable in one situation, location, or population than in another. By defining and estimating risk as a probability, better program targeting can be achieved. Tarter (1988) has developed a Diathesis-Stress Model which depicts some of the key environmental factors that can attenuate or exacerbate the vulnerability to a particular degree of risk.

Evidence that there are numerous pathways to substance use and abuse has led to the development of a risk-factor approach, which hypothesizes that with increased exposure to those factors known to be associated with drug use, there is an increased chance of drug use or abuse occurring, even when a single factor by itself may not be a powerful predictor. Bry, McKeon, and Pandina (1982) reported that the total number of vulnerability characteristics was more important than the specific type of risk factors in predicting cigarette, alcohol, and cannabis use. Newcomb, Maddahian et al. (1987*) found that adolescent drug use and abuse is linearly related to a unit-weighted, summed index of 12 risk factors. (See also Bry 1983; Newcomb, Maddahian, and Bentler 1986; Tarter 1988.)

MINORITY YOUTH. The largest single population which is at risk consists of ethnic and racial minority youth. They experience higher rates than the general population of those factors known to be associated with drug abuse (e.g., population growth, poverty, school failure, family problems, and involvement in the criminal justice and social welfare systems). They are also more likely to come from families or environments with high rates of drug abuse. Epidemiologic survey data indicate that racial/ethnic minorities are overrepresented in treatment programs and in drug-related emergency hospital admissions, and that minority drug abuse, especially of hard drugs, is increasing. Minority youth

thus have a greater chance of residing under conditions that are conducive to promoting abuse, as predicted by the risk-factor approach. Adding urgency to the problem, they are one of the fastest growing segments of the American population (Hanson 1985:101; Tucker 1985:1022-1023; Trimble, Padilla, and Bell 1987*:ix; Wright and Watts 1988*).

Unfortunately, there is a relative lack of drug research specifically on minorities and even less on minority youth (Austin, Johnson et al. 1978; Hanson 1985; Iiyama, Nishi, and Johnson 1976; Trimble, Padilla, and Bell 1987*; Tucker 1985; Welte and Barnes 1987*; Wright and Watts 1988*). Much of what has been written is subjective and anecdotal. The empirical evidence has been largely limited to simple racial comparisons. Interpretations or theoretical generalizations that take into consideration the special circumstances of minorities and that could guide treatment and prevention have been lacking or not convincing (Austin, Johnson et al. 1978; Tucker 1985:1032). Furthermore, our knowledge of prevention and treatment lags far behind our knowledge of epidemiology (Hanson 1985; Tucker 1985; Globetti 1988*; Schinke, Palleja et al. 1988*). Schaps, Dibartolo et al. (1981), reviewing 127 drug prevention program evaluations conducted between 1968 and 1977, found that nearly 70 percent failed to specify race or ethnicity and only three programs served populations with more than 50 percent minority.

It is evident that prevention programs developed for mainstream youth have had little impact on minorities and that prevention efforts have to overcome several barriers if any success is to be achieved. First, most prevention efforts are school based and do not reach the high number of school dropouts among ethnic minorities. Since most drug surveys are school based, this high dropout rate also limits our knowledge and understanding of minority youth drug use (Welte and Barnes 1987*; Beauvais and Oetting 1988*).

Second, although the literature stresses that community involvement is critical to effective prevention among minority youth, there is often a relative lack of community resources on which to draw (Globetti 1988*:125; Wright and Watts 1988*).

Third, adolescent as well as adult minority drug users are often isolated from the rest of society by cultural, linguistic, and even geographic barriers. The values and language of mainstream prevention programs are often not relevant or meaningful to them, nor is the approach applicable to their situation.

Fourth, the views of mainstream society are often influenced by prejudicial, inaccurate, or stereotypical perceptions. Many "common-sense" notions of high levels of drinking and drug taking among minority group members are difficult to maintain: many minority groups consume less alcohol and certain drugs than do Whites (Welte and Barnes 1987*; Beschner and Friedman 1985). As Wright and Watts (1988*) further point out in regard to alcohol, using drugs, being a minority, and being young are three dimensions viewed by the larger society with mixed, sometimes hostile and fearful, reactions.

Fifth, despite the common problems experienced by all minority youth, there are important differences between and within the major ethnic and racial groups, as discussed below.

Minorities are a diverse population with unique characteristics and prevention needs. Varied patterns exist in the type, prevalence, and severity of substance use; in the sociocultural context in which drugs are used; in the attitudes towards their use; and in the drug-related problems experienced. As a result, different minority populations, and even subpopulations, require different prevention and treatment approaches (Hanson 1985; Kosten, Rounsaville, and Kleber 1985; Schinke, Palleja et al. 1988*:12; Trimble, Padilla, and Bell 1987*; Welte and Barnes 1987*). The literature on alcoholism treatment clearly indicates that specific programming is needed for minority clients (Maypole and Anderson 1986/87:62). As Tucker (1985:1022) observes: "The demand for special attention [for minorities] is based on the recognition that the distinctive circumstances of particular ethnic groups...are bound to have implications for both the type of substance abuse problems faced and the means for addressing such difficulties." But these circumstances and implications require much further research.

Various researchers have reported ethnic-racial differences that are important to understanding substance use and to developing appropriate treatment and prevention programs. For example, compared with Whites, Black and Hispanic adolescents are much more likely to be involved with heroin and cocaine and to be less involved in nonopiate multiple drug use (Beschner and Friedman 1985: 973-974, 979-980.) Many past surveys of drinking among youth have had few minorities in their samples, but it appears that Black and Hispanic youth drink less than Whites, and Native Americans have the highest consumption of all (e.g., Zucker and Harford 1983). Among the studies abstracted here, Welte and Barnes (1987*) found that cultural background exerted a strong influence on alcohol use among New York state youth, with American Indians reporting the highest rates of alcohol use and Blacks reporting the lowest. Further, although Blacks and Hispanics reported lower rates of consumption than Whites, all minority groups experienced more drinking problems, indicating that drinking problems are more

easily acquired among lower socioeconomic status groups. Newcomb, Maddahian et al. (1987*) and Maddahian, Newcomb, and Bentler (1988*) found significant ethnic differences in adolescent use of all substances, except for hard drugs, and in the association between current level of substance use and respondents' intention to use. Furthermore, although their research indicated that reducing the expressed intention to use drugs reduced future drug use to some extent for all ethnic groups, there were differences between groups and drugs. (See also Maddahian, Newcomb, and Bentler 1985; Newcomb and Bentler 1986; Newcomb, Maddahian, and Bentler 1986.)

Prevention programs and materials must be culturally appropriate and relevant, recognizing and addressing not only the differences between the minority and mainstream populations, but also those within minority subpopulations. Substance-abuse professionals must strive to develop an appropriate style, manner, and content of communication (verbal and nonverbal) for targeted groups (Cunningham 1988). Gilchrist, Schinke et al. (1987*:871) further warn that "prevention methods that emphasize stereotypic, narrowly culture-specific reasons for drug use may perpetuate overly simplistic myths about the problem." Regarding Hispanics, Blacks, and Native Americans, Schinke, Palleja et al. (1988*:12) observe: "Because these youth reside largely in defined neighborhoods, barrios, or on reservations...culturally tailored prevention interventions hold particular promise." Holiday (1983) has emphasized the necessity of incorporating social and cultural considerations within a developmental framework as a heuristic model for implementing prevention programs among minority groups. However, to date, no such model exists (Wright and Watts 1988; Globetti 1988:125). *The Journal of Drug Issues* devoted its Winter 1988 issue to the problem of alcohol use among minority youth. A recurrent theme of the articles in this volume was that "a systematic and comprehensive examination of alcoholism among minority youth is difficult at this time because of (1) the paucity of empirical research on these populations and (2) the lack of theoretical models that take into account cultural factors in analyzing, treating, and preventing alcohol abuse" (Wright and Watts 1988*:4). Globetti (1988*) observed that both epidemiological and prevention research on alcohol are limited in that they either treat minority youth as a homogeneous group or apply a White, middle-class curriculum to prevention activity. He concludes that educational curricula derived from the developmental and the sociocultural models appear most applicable to minorities. Similar observations were found throughout the literature reviewed.

Finally, we cannot come to grips with the substance abuse problems among minority youth without seriously attempting to alleviate the poverty, education, life condition, and the other sociocultural problems that put them in such high risk. But Hanson (1985:127) also observes that even if the problem of substance abuse cannot be totally solved until these harsh conditions are improved, "more understanding of the situation and world views of minority group members, as these relate especially to the meaning they attach to drug use and abuse and treatment, can lead to more effective treatment and even prevention of drug abuse." (See also Tucker 1985:1025.)

More detailed findings regarding Native Americans are reported below; findings regarding other minority groups will be reported in the forthcoming issues.

NATIVE AMERICANS: NATURE AND EXTENT OF THE PROBLEM

Of all American populations, none appears to be more at risk than Native American youth. Pinto (1973) characterized alcohol and other drug abuse among them as a growing crisis and "a major national scandal." Since then, the problem has escalated significantly, particularly in regard to illicit drugs, about which Pinto had little to say. There is a large and growing body of research indicating that compared with other population groups as a whole, Native Americans exhibit the greatest overall use of psychoactive substances. The U.S. Indian Health Service (IHS) has called substance abuse the number one health problem among American Indians and in 1986 launched an intensive, community-based prevention initiative. That year, Congress included a mandate for increased prevention activities on behalf of Native Americans in the Anti-Drug Abuse Act. As Bernard McColgan, at the Office of Substance Abuse Prevention, has summarized it, "the dimensions of the substance abuse epidemic and its associated societal costs [among Native American youth] are appalling" (quotation in Moore 1988; Tucker 1985:1022; Vanderwagen, Mason, and Owan 1987).

As with other minority groups, there are tremendous gaps in our knowledge of the extent and nature of the problem. Much of the evidence collected in the 1970s was poorly documented and varied widely in results (Beauvais, Oetting, and Edwards 1985*:210; Leland 1980; May 1982). Trimble, Padilla, and Bell (1987*:5) characterize the research conducted as of 1983 as lacking in detail, inconclusive, and inadequate for either theoretical or practical purposes. Compounding this problem are the many stereotypes surrounding Indian drug use, particularly in regard to alcohol.

Most research to date has concerned alcohol use among adult males living on reservations in the

southwest. There are much fewer studies on adolescents (male and female), on use in urban settings, and on illicit and street drugs (Trimble, Padilla, and Bell 1987:2-5; Dinges, Trimble, and Hollenbeck 1979; Okwumabua and Duryea 1987*; Weibel 1982:350; Weibel-Orlando 1984). We also know very little about the evolution, operation, and effectiveness of prevention and treatment programs. Furthermore, what we do know is not easily generalizable from tribe to tribe. There are 481 tribal groups throughout the country, each with different circumstances and situations. The lack of research on nonreservation youth is especially problematic since fully one-half of Indian people now live in cities. Not only do they have unique patterns and problems surrounding use, but the high mobility between reservations and cities may be an important factor in the supply of drugs (Beauvais 1988). (See also: Mail and McDonald 1980; Williams 1985.)

Fortunately, since 1980, recognition of the problem of Indian adolescent drug use has resulted in more and better research being undertaken, and our knowledge has grown appreciably. Several ongoing projects are helping to define the nature and extent of the problem more clearly, to identify contributing factors, and to develop culturally sensitive and appropriate prevention approaches. The oldest (since 1975) and most extensive study, and the source of much of the epidemiological information about Indian adolescents, is the ongoing research at the University of Colorado by E.R. Oetting, Fred Beauvais, Ruth Edwards, and colleagues. Another major project, more prevention oriented, has been conducted in the Pacific Northwest by a team including Steven Schinke, Lewayne Gilchrist, and Joseph Trimble.

The evidence uniformly demonstrates that substance abuse is widely prevalent among Native American adolescents and even younger children, although important intertribal variations do exist. Rates of use for almost all drugs, but especially alcohol, marijuana, and inhalants, have been consistently higher among American Indian youth than non-Indian youth, and, until recently, have steadily increased (Lambert 1988; May 1988*:188; Weibel-Orlando 1984:319; Beauvais, Oetting, and Edwards 1985; Query 1985; Wingert and Fifield 1985:1580;).

For example, Oetting, Beauvais et al. (1983) found that more than a third of Indian adolescents in grades 7-12 used marijuana and alcohol regularly, compared with only 5 percent regular users among non-Indians. In eight categories of drugs other than alcohol, rates of use were higher among Indian than non-Indian youth. Their data also indicate far less gender differences among Indians than non-Indians. Lifetime prevalence of alcohol, marijuana, and inhalants increased quite sharply between 1975 and 1981, followed by a general decline through 1985. This decline they believe is related to the same broad societal forces that have been producing a decline in adolescent drug use in the general population. However, their most recent surveys suggest that this decline may have stabilized, with some increase possible evident (Beauvais, Oetting et al. in press). Overall, they estimate that 50 percent of Indian youth are at some risk due to their substance abuse. Since the survey was school-based, overall rates were probably even higher (Beauvais, Oetting, and Edwards 1985).

In other findings, IHS data indicate that Indian youths aged 10-18 years comprise 34 percent of adolescent detoxification program admissions in the Minneapolis area (Moore 1988). In the Pacific Northwest, weekly use of drugs other than alcohol was reported by 27 percent of Indian adolescents, but only 8 percent of non-Indian adolescents; 38 percent and 13 percent, respectively, reported weekly alcohol intoxication (Schinke, Bebel et al. 1988*:516). In California, Newcomb, Maddahian et al. (1987*) found that American Indian adolescents reported more frequent use of alcohol, cigarettes, cannabis, cocaine, and hard drugs than did Asians, Blacks, Hispanics, or Whites. In one of the few studies to deal specifically with urban Indians, Okwumabua and Duryea (1987*) found lifetime prevalence rates of 79 percent for alcohol, 80 percent for marijuana, and 44 percent for sniffing solvents.

Evidence also indicates that use begins at a very early age and that the age of initiation has been steadily declining (Beauvais and LeBoueff 1985; Oetting, Beauvais et al. 1983; Weibel-Orlando 1984:327). The IHS has reported that Indian youth often begin using alcohol, marijuana, and inhalants between the ages of 11 and 13 (Moore 1988). This is supported by the research of Okwumabua and Duryea (1987*) and Beauvais and Oetting (1988*).

(See also: Cockerham 1977; Cockerham, Forslund, and Raboin 1976; Heidenreich 1976; Lobb and Watts [forthcoming]; May 1982; McBridge and Page 1980; Strimbu, Schoenfeldt, and Southern 1973.)

Regarding specific drugs, the research indicates the following:

ALCOHOL USE. American Indian alcohol use is a persistent, complex phenomenon which has reached epidemic proportions (Trimble, Padilla, and Bell 1987*; Williams 1985). Alcohol is by far the most widely abused drug among all age groups. The overall rate of alcoholism is two to three times the national average (Yates 1987:1136). For all alcohol-related causes of death, the Indian age-adjusted mortality rates are higher than for the nation as a whole (Podolsky 1986/87:7). The IHS has estimated that significant drinking problems are experienced by as many as 50 percent of the

population of some reservations and has called it their single most significant problem (Carpenter, Lyons, and Miller 1985*:300).

Among American Indian youth, research has consistently found widespread and often heavy and rapid consumption, at rates higher than non-Indian populations and with fewer gender differences. The majority of all youth of most tribes (56-89 percent) report experimentation with alcohol (May 1986*:188), and heavy drinking has been called the main reason that one in two Indian students never finish high school (Trimble, Padilla, and Bell 1987*:3). More specifically, a 1987 Indian Health Service survey indicated that in 1985, 78 percent of 7th-12th graders had used alcohol, compared with only 57 percent of non-Indians in the same grades. Heavy alcohol use was reported by 2.2 percent, compared with 0.2 percent in 1975 (Moore 1988). The government estimates that drinking problems are experienced by 42 percent of adolescent males and 31 percent of females (Laign 1988). Almost 92 percent of children in the Wind River Reservation reported trying alcohol and 80 percent considered themselves regular drinkers. Gender differences in levels of drinking did not seem to be significant. Drinking alcohol was the most frequently cited source of trouble; nevertheless, 56 percent of youths said they approved of it (Cockerham 1975). Query (1985) found that Indian youth were overrepresented ten-fold in one North Dakota state alcoholism treatment unit. In the Pacific Northwest, weekly alcohol intoxication has been reported by 38 percent of Indian youth, compared with 13 percent of non-Indians (Schike, Bebel et al. 1988*:516).

Among the youth studied by Oetting, Beauvais and colleagues, 35 percent of Indians, compared with 21 percent of non-Indians, reported getting drunk at least once every two months by the time they were high school seniors. Furthermore, the proportion who had gotten high or drunk during the last two months was higher still: 67 percent of Indians vs 45 percent of non-Indians. Almost half (46 percent) had been drunk enough to stagger, fall, or black out, compared with about a quarter of non-Indians (Oetting, Edwards et al. 1980; Oetting, Beauvais et al. 1980). Among a later sample of 1400 American Indian youth, 82 percent reported having used alcohol at least once, compared with 66 percent of non-Indian youth sampled. In addition, 50 percent of Indians reported that they had used alcohol in the recent past, compared with 27 percent of non-Indians. Much of the Indian drinking again appeared to be heavy, with incidents of blackouts and extremely drunk behavior (Beauvais and LeBoueff 1985:147- 149).

Youth surveys that include various ethnic groups consistently find that drinking levels and problems are higher among Indians than among other groups. In a large national survey of alcohol use among White, Hispanic, Asian, Indian, and Black youths conducted in 1974 by J.V. Rachal, abstinent girls generally outnumbered abstinent boys in all five groups, but among the Indian sample the abstaining male-to-female ratio was greatest and the ratio of male-to-female heavy drinkers was smallest. Among those adolescent girls who did drink, heavy drinking was most prevalent among Indians. In New York state, Welte and Barnes (1987*) found that a higher proportion of Indian youth were heavy drinkers than were other ethnic groups. Similar results are reported by Newcomb, Maddahian et al. 1987*.

Another consistent finding is that alcohol use among Indians begins very early. In a survey of 20 Indian communities, 32.4 percent of adults reported beginning alcohol use between the ages of 11 and 15 (Moss and Janzen 1980:30). In another survey, 68.8 percent of adult Indians reported that they had begun drinking between ages 13 and 16 (Olsen and Baffi 1982). Cockerham (1975) found that children in the Wind River Reservation began drinking by age 13; Oetting and Goldstein (1979) reported that 12 percent of Indian youths regularly drank some alcoholic beverage by their 9th birthday. In a study of seven different reservations, over 33 percent of youth between age 9 and 12 reported alcohol use (Beauvais and LaBoueff 1985).

(See also: Beiser and Attneave 1982; Holmgren, Fitzgerald, and Carman 1983; McDiarmid 1983; Halloway 1966; Swanson, Bratrude, and Brown 1971; Topper 1974; Vanderwagen, Mason, and Owan 1987:18-19; and Williams 1983.)

MARIJUANA USE. Marijuana is the next most popular drug after alcohol. May (1986*:188) estimated that about half (41-62 percent) of Native American youths have tried marijuana use, compared with less than half (28-50 percent) of other youths, although there is wide intertribal variation. Lifetime prevalence rates of 70-80 percent have recently been reported.

Among the rural high school and middle school students surveyed in 1975 by Winfree and Griffiths (1983), 50 percent of Indians had tried marijuana, compared with only 27 percent of non-Indians. In addition, 28 percent of Indians were occasional and regular users, compared with 11 percent of Whites. They also began using earlier than Whites, with use increasing with age. Beauvais, Oetting, and Edwards (1985*) found that lifetime prevalence for marijuana use in 1982-83 was more than double that of non-Indians (about 70 percent vs 25 percent), approaching the level of alcohol (see also Oetting, Beauvais, and Velarde 1982). In the urban sample surveyed by Okwumabua and Duryea (1987*), lifetime prevalence was actually

higher for marijuana than alcohol (80 percent vs 79 percent). In the IHS survey, 59 percent of 7-12th graders in 1985 reported marijuana use, compared with 24 percent for non-Indian youths (Moore 1988).

INHALANT USE. A major threat is posed by the growth in popularity of inhalants (gasoline, paint thinner), especially among the youngest drug users (McBridge and Page 1980; Weibel-Orlando 1984:320; Young 1987*). Because of their ready availability, inhalants are likely to be the first drugs to be abused by young people who are at risk. Native American youth are consistently reported to have one of the highest prevalence rates for inhalants, with estimated ranges of 17 to 22 percent, compared with 9 to 11 percent of non-Indian youths (Wingert and Fifield 1985; May 1986*:188). In the late 1970s, Indian youth were already estimated to be two-to three-times as likely to be involved with inhalants than the general population (Oetting and Goldstein 1979).

The longitudinal studies of Beauvais and colleages have enabled them to trace trends in inhalant use over a decade. Between 1975 and 1983, a rapid increase in use from 15 to 32 percent occurred among Indian youths, whereas among non-Indians prevalence was much lower and did not show a similar increase over time (Beauvais, Oetting, and Edwards (1985*). After 1983, the trend was reversed and use of inhalants decreased until 1985, but in 1985 a higher rate of recent use still existed among both 8th- and 12th-grade Indians than among non-Indians. The greatest increase in use occurred between ages 11 and 13. Although use then dropped off with age, the level of continuing use was much higher among Indian than non-Indian youth (Beauvais and Oetting 1988*). Furthermore, their latest research indicates a slight increase again in 1986-1987 (Beauvais, Oetting et al. in press). (See also: Beauvais, Oetting, and Edwards 1985a; Kaufman 1973; Schottstaedt and Bjork 1977.)

This high prevalence rate is of particular concern because youth who begin drug use with inhalants are more likely to continue serious levels of drug involvement than those whose first drug is marijuana or alcohol (Crider and Rouse 1988:2). Research on inhalant users in general has determined that "at every age, inhalant use marks a very high general level of drug involvement for that age group and suggests potentially serious emotional and/or social adjustment difficulties" (Oetting, Edwards, and Beauvais 1988:197).

OTHER DRUG USE. There is much less use of other illicit drugs besides marijuana and inhalants (May 1986*:188; Weibel-Orlando 1984). The next drug in popularity appears to be stimulants (Beauvais and LaBoueff 1985:150; Beauvais, Oetting et al. in press.) Perhaps reflecting this, Binion, Miller et al. (1988*) found a paucity of use rationales for illicit drugs other than marijuana and inhalants among Indian youths. However, this may just mean that Indian youth have not yet developed a lore about what these drugs mean (Beauvais 1988). Nevertheless, Oetting and Beauvais have demonstrated that, compared with the general population surveyed in the National High School Senior Drug Survey (Johnston, Bachman, and O'Malley 1987), Indians consistently report higher lifetime prevalence and current use in all drug categories, with the notable exception of cocaine.

ETIOLOGY. Trimble, Padilla, and Bell (1987*:5) observe that "there are no universal and all-encompassing explanations for drug and alcohol abuse among American Indians, much less for developmental life stages within a group." The etiology is complex and multifactorial, and no consensus has emerged. To what extent do the same factors influence both Indian and non-Indian youth? Binion, Miller et al. (1988*) found differences in the reasons for using specific drugs given by Indian and non-Indian 8th graders. Winfree and Griffiths (1983) determined that the variables that reveal the most about marijuana use among White youth revealed the least about it among Native Americans, and vice versa. Whereas marijuana use was related to liberal attitudes among Whites, it was not among Indians.

Despite such differences in specifics, overall the evidence indicates that many etiological influences are the same for Indians and non-Indians and that "high levels of drug and alcohol use are not the result of anything inherent in Indian tradition" (Beauvais and LaBoueff 1985:155; Query 1985:489, 495; quotation by Gilchrist, Schinke et al. 1987*:871-872). Among the implicated factors are peer group encouragement, laissez-faire childrearing practices, conflicts between cultural ideals and behavioral realities, parental and community attitudes about alcohol and other drug use, and concomitant adult-use models--all of which have been shown to be associated with substance abuse in other populations as well (Weibel-Orlando 1984:313).

What most clearly accounts for this high abuse level are not differences in kind or in the etiological process itself but differences in the number and degree of etiological influences and risk factors experienced. As Newcomb, Maddahian et al. (1987*) found, it would appear that the more frequent drug use among American Indian adolescents than among Asians, Blacks, Hispanics, or Whites is largely due to their being exposed to significantly more risk factors. Thus, the etiological research on Native American youth supports the risk-factors approach. This may explain the observation made by Welte and Barnes (1987*:334) that "heavy drinking among American Indian youth is difficult to explain in terms of poverty or threats to cultural identity because drinking among Hispanic and Black

youth is not unusually high. Some circumstances unique to American Indians must be used as explanations." That unique circumstance may be the sum total of risk factors that they experience.

This situation is a result of the persistent and deep sociocultural and economic problems of Indian life in the United States. More than any other population group, Indian youth face greater uncertainty and integration problems and suffer more severely from such substance-related problems as poverty, poor school adjustment and failure, unemployment, antisocial behavior, criminal arrest, increased morbidity and mortality, lack of opportunity, feelings of uncertainty, hopelessness, and despair, and family breakdown (Beauvais and LaBoueff 1985; Edwards and Edwards 1988*:105; Jones-Saumty, Hochaus, and Zeiner 1983; May 1986*; Schinke, Botvin 1988*:87; McBride and Page 1980:480; Malone 1985; Oetting, Beauvais et al. 1983; Oetting, Beauvais, and Edwards 1988*; Trimble 1984; Weibel-Orlando 1984; Winfree and Griffiths 1983). The Native American "is the most severely disadvantaged population within the United States" and in their adolescence they are profoundly alienated and depressed, with high emotional disorder rates, including delinquency, learning and behavior problems, and suicide (Yates 1987:1135-1136).

Three specific factors have been identified as being especially important in increasing the possibility of substance abuse among Indians. The first is a sense of cultural dislocation or lack of integration into either traditional Indian or modern American life. As Trimble, Padilla, and Bell (1987*:2) observe, "Indians persist both as heterogeneous cultural groups and as a separate segment of American society" (see also May 1986*:192). The role of integration and acculturation needs further investigation. Oetting and Beauvais (1982) observed the highest levels of use among those who were most closely identified with non-Indian values (acculturated) and the lowest levels among those who expressed an ability to adapt comfortably both Indian and non-Indian values (biculturated). May (1982) found evidence indicating that youths from well-integrated tribes in which cultural identification was strong were less apt to abuse substances. Involvement in Indian culture would appear to be a protective factor.

Second, there is a lack of clear-cut sanctions against use among Native Americans (Oetting, Beauvais, and Edwards 1988*; Schinke, Botvin et al. 1988*:87). Growing up in an environment in which substance abuse, particularly of alcohol, among adults is normative, Indian youth may not regard it as deviant but as a sign of adulthood (Edwards and Edwards 1988:105; Schinke, Bebel et al. 1988*:516). Regarding alcohol, Leland (1980) has stressed the need to look at the association between the children's attitudes and behaviors and their parents' consumption. Weibel and Wisner (1980) determined that there is a statistically significant relationship between high levels of drinking in the family of origin and alcohol abuse in later life (Weibel 1982:350). However, in another study Weibel found relatively little drinking in the childhood homes of later heavy drinkers, apparently because they were raised by grandparents (Weibel- Orlando 1986/87:11). (On adults as role models, see also Swanson, Bratrude and Brown 1971; Query 1985.)

Third, a number of researchers on Native American youths have found strong peer-group support for drug use, which has also been shown to be an important, if not the primary, influence on drug use among American youth in general (Cockerham, Forslund and Raboin 1976; McBridge and Page 1980; Oetting and Goldstein 1979; Vanderwagen, Mason, and Owan 1987:19). Carpenter, Lyons, and Miller (1985*:300) observe that "rapid alcohol consumption is normative among Indian drinkers and this pattern extends to adolescents, who begin to drink in peer groups where drinking is not only sanctioned but expected." Oetting, Beauvais, and Edwards (1988*) measured "extremely high" relationships between peer associations and alcohol involvement. Beauvais and LaBoueff (1985:153) characterize the problem regarding drugs as a dual condition of having both many peers who encourage use and many others who do not stop someone from using. For marijuana, Winfree and Griffiths (1983) found that perceptions of the extent of peer use was the primary influence. In fact, Weibel-Orlando (1984:320-321) concluded that "peer attitudes, modeling by siblings, and peer acceptance are probably the greatest determinants of [drug] use among younger [Native American] populations." Among both Indian and non-Indian youth, Oetting and Beauvais (1986) have proposed that, although a very wide range of social and psychological factors make a child susceptible to drug involvement, small groups of peers ("peer clusters") have the strongest influence on use decisions.

Other strong influences that have been identified are: (1) the lack of stability of the home and family (Garcia-Mason 1985; Longclaws, Barnes et al. 1980; Oetting, Beauvais, and Edwards 1988*; Red Horse 1980; Swanson, Bratrude, and Brown 1971; Thomas 1980); and (2) the exorbitant amounts of free time that reservation Indians experience, with drugs being used as a way to cope with boredom (Edwards and Edwards 1988*:105; Binion, Miller et al. 1988*).

For inhalant use particularly, the isolation and adversity of Indian life may play an especially significant role. Nationally, the highest prevalence of inhalant use is found in relatively isolated communities such as Indian

reservations or small Hispanic communities (Crider and Rouse 1988:2). Inhalants "appear to be used more often in enclaves of disadvantaged populations where there is a large degree of physical and social isolation" (Beauvais and Oetting 1988a:30). Wingert and Fifield (1985) found that Indian inhalant users were less homogeneous in social, academic, and behavioral characteristics than other substance-abuse groups among Indians.

PREVENTION. The dearth of research on substance abuse among Indian adolescents extends to the area of prevention, in large part because not much effort has been directed toward prevention among this population. The call for the inclusion of alcohol and drug education in Indian schools has been relatively recent (National Indian Health Board 1982). According to Vanderwagen, Mason, and Owan (1987:19), "the chance for exposure to alcohol education or good coping-skills courses is hit or miss." Every state-run Indian school has different requirements. Peer counseling, training, and intervention projects are "few and poorly funded," and schools have widely disparate policies for dealing with the problems, have different definitions of what constitutes alcohol and substance abuse, and lack trained personnel. (See also: U.S. Bureau of Indian Affairs 1982.)

Are the same programs equally effective for Indians as for Whites? Based on 1983 data, Trimble, Padilla, and Bell (1987*:5) concluded: "While some of the educational efforts are demonstrating effectiveness among non-Indian youth, there is little evidence that educational strategies are effective with Indian youth regardless of tribal affiliation or residential status (i.e., urban, reservation, or rural)." Similarly, May (1986*:187) warns that "programs suited for other populations in the United States are not immediately applicable to most Indian groups."

Given the rich variety of Native American cultures, how do we target specific needs and patterns for different tribes? May (1986*:187) observes that "programs designed for one tribe or group of tribes may have limited relevance for other tribes." It is also uncertain that techniques effective among adults will also be effective among youths. In an intergenerational study of drinking patterns among the White Mountain Apache, Everett (1972) found distinct differences between adults and youths, with very little mixing of the groups, suggesting that intervention strategies that may work for mature Indians may not work for youth.

Most in need of research and development are theoretically and culturally sound intervention programs (Gilchrist, Schinke et al. 1987*:870; Schinke, Botvin et al. 1988*:87). "To overlook the special culture and associated identity needs of Indians or other minorities is to court failure," Query (1985:500) warns. At the North Dakota hospital studied by Query (1985), positive treatment outcome was much stronger for Whites than Indians, raising questions about the effectiveness of the program for both populations. Laign (1988) observes that "conventional treatment methods have failed miserably for Native Americans," probably because they are a communal people and mainstream methods focus on the individual. Winfree and Griffiths (1983) suggest that, given the endemic family problems and negative attitudes toward "white-man's law" that exist, prevention programs designed for the general population that include pro-law information and stress the family may have only limited success among Indians. Beauvais and LaBoueff (1985:169) further admonish that "interventions...must be congruent with the current movement toward [Indian] self-determination. Externally imposed solutions, at a minimum, will not work and probably will only add to the sense of failure experienced by Indian people."

In several studies, Gilchrist and Schinke have stressed the value of skills training for achieving bicultural competence to offset the pressures toward substance abuse. Bicultural competence, they argue, allows Native American pupils to integrate majority culture values, norms, and behaviors without losing their identification with and respect for traditional Native American values. This view is supported by an Oetting and Beauvais' (1982) finding that biculturated Indian youth showed the least substance abuse. Schinke, Bebel et al. (1988*) found modest support for skills intervention among a sample of 61 youths (see also Schinke, Palleja et al. 1988*). Schinke, Botvin et al. (1988*) reported that, among 137 American-Indian adolescents, those who received prevention intervention based on bicultural competence skills concepts improved more than nonintervention controls. Surprisingly, although Gilchrist, Schinke et al. (1987*) found positive effects from a culturally-tailored skills enhancement program, the program did not affect self-esteem, probably because the measure used was too generic. May (1986*:192) also emphasizes the need for a social-learning model that builds self-esteem and coping skills.

On the community level, given the lack of use sanctions that have been found, it is essential to foster an understanding that abuse is a problem and to involve the community in its elimination or reduction (Beauvais and LaBoueff 1985; Carpenter, Lyons, and Miller 1985:308; Vanderwagen, Mason, and Owan 1987:67, 88-91). Binion, Miller et al. (1988*) stress that a combined effort by community organizations is needed to offset the positive experiences associated with drug use among adolescents. Beauvais and LaBoueff (1985:159) write: "The goal of an intervention effort aimed at

community values is to create an observable ethic which encompasses the community's stance on drug and alcohol use. Furthermore, such an effort must make clear what the acceptable options are for the individual within the community." Given the etiological role of free-time and boredom, it has been frequently recommended that this approach should include the development of chemical-free, planned, and structured alternative youth activities, such as recreation or community service (Vanderwagen, Mason, and Owan 1987:19). (On community approaches, see also McDiarmid 1983; Edwards and Edwards 1988.)

Oetting, Beauvais, and Edwards (1988*) determined that among Indian youth heavy alcohol users differed from nonusers on a spectrum of family and school problems, and on the number of peers encouraging use, but not on any personality dimensions. This would lend credence to the importance of focusing prevention efforts on the family and community rather than the individual.

Finally, given the evidence of the very young age of initiation, there is a universal call for early intervention (Oetting, Beauvais, and Edwards 1988*; Maddahian, Newcomb, and Bentler 1988*). Okwumabua and Duryea (1987*) recommend that programs be targeted at reducing initiation among children rather than at reducing actual use among older users.

SUMMARY

It is increasingly evident that effective prevention programs must focus on those factors that place individuals and groups at risk for substance abuse as well as those factors that "innoculate" people against the pressures to abuse drugs. In light of the evidence in support of the risk-factors approach, we must seek to reduce the total number of factors that place youths at risk, particularly family, community, and other environmental factors. At the same time, we need to know far more about protective factors and how they can be promoted. What is also evident is that prevention efforts must be sensitive to cultural differences and to the special traditions and needs of particular ethnic and racial groups. There do appear to be similar risk factors that are common, in varying degrees, within all groups, but programs to reduce the influence of these factors need to be made culturally specific.

ABSTRACTS

Beauvais, Fred; Oetting, E.R.; and Edwards, R.W. 1985. TRENDS IN DRUG USE OF INDIAN ADOLESCENTS LIVING ON RESERVATIONS: 1975-1983. American Journal of Drug and Alcohol Abuse 11(3/4):209-229. 17 refs.

From 1975 through 1983, anonymous surveys on drug use were administered to more than 10,000 7th-12th grade students in Indian reservation schools representing 30 tribes. The results, believed to be reasonably representative of Indian youth living on reservations, were compared with those of National Institute for Drug Abuse's National Household Drug Survey.

Findings. From 1975 through 1981 there were six years of increasing drug involvement among Indian youth, with the exception of hallucinogens, sedatives, and tranquilizers. After 1981 there occurred a slight drop in lifetime prevalence for most drugs except inhalants and a considerable drop in stimulant and sedative use. Current use figures showed the same trend, with increasing current use through 1981 followed by a slight drop.

Lifetime prevalence for most drugs was higher than that for non-Indian youth throughout this period, and rates for alcohol, marijuana, and inhalants, the most frequently tried drugs, were particularly higher. More than a fourth reported getting high or drunk at least once during the two months prior to the survey.

Lifetime prevalence for marijuana was more than double that of non-Indian youth, approaching the level of alcohol. In one school grade, more youth had tried marijuana than alcohol. Lifetime use was reported by 74 percent in 1980-81, compared with 41 percent in 1975, "an almost incredible increase." Of those trying it, 80 percent continued use.

Lifetime inhalant use had increased gradually from 15 percent to 32 percent between 1975 and 1983. Not only was there a high lifetime prevalence but 27 percent of those who had tried inhalants continued to use them, a phenomenon which may be unique to Indian youth. Among non-Indians, use prevalence was much lower and did not show a similar increase over time. There was no difference between Indian males and females in either lifetime prevalence or recent use, whereas non-Indian males used inhalants more often than females. There was also a decreasing age curve: recent use decreased as age increased, indicating inhalants were especially popular among young students. The lack of any decrease in inhalant use after 1981 may reflect its endemic nature.

Analysis of patterns of drug use, in which youth were classified according to number, type, and depth of involvement with drugs in eight categories, showed a similar trend, with sharp increases until 1981 and then a drop in all but one of the more serious drug use types, the one including inhalants.

Overall, 53 percent of Indian youth were classified as "at risk from their drug involvement," compared with 35 percent of non-Indian youth.

Conclusions. The signs of improvement after 1981 can be cause for optimism. Nationally, there has also been a decline in drug use since 1981, possibly due to changes in those broad psychosocial forces which shape drug use. These forces may be extending even to remote reservation areas.

However, about half are now at some risk due to their drug and alcohol use. Reasons for this high level of drug use among Indian youth probably relate to the severely detrimental conditions on reservations: unemployment, prejudice, poverty, and a generally disheartening outlook about the future.

Beauvais, Fred, and Oetting, E.R. 1988. INDIAN YOUTH AND INHALANTS: AN UPDATE. In: Crider, Raquel, and Rouse, B., eds. Epidemiology of Inhalant Abuse: An Update. NIDA Research Monograph 85. Washington, D.C.: GPO. DHHS Pub (ADM)88-1577. pp. 34-48. 18 refs.

In an update of the 1983 survey conducted by Beauvais, Oetting, and Edwards (1985--see above), data were examined from over 12,000 students living on reservations in 1985. For this analysis, only results were examined for 12th, 8th, and 4th-6th graders. Of primary interest were the 12th graders, who were compared with the high school seniors surveyed by NIDA's National High School Seniors Survey. Because there is a relatively high dropout rate among Indian youth, which might make the inhalant use rates reported artificially low, the Indian 8th graders were compared with a sample of non-Indian 8th graders who have been surveyed by the authors since 1981.

Findings. Since the 1983 survey, there had been a decrease in lifetime inhalant use among 12th graders, and a slighter decrease for 8th graders. Levels of inhalant use were still comparatively high. At both age levels, Indian youth had consistently higher rates of lifetime inhalant experimentation than non-Indian youth; for seniors, nearly 2.5 times as high. However, in 1985, the gap lessened considerably.

Recent use was generally much lower than lifetime use. Less than 15 percent of 8th graders and 4 percent of seniors were using inhalants in the past month in the last period of the survey (1984-85). If a youth had not used in the past month, he or she was probably not at much risk. However, Indians still reported higher levels

of recent use than non-Indians and recent use had not declined like lifetime use, especially among 8th graders.

The age pattern indicated that such use by Indian youth begins when they are very young--the predisposing factors are well in place by the 4th and 5th grades.

Among both Indians and non-Indians, inhalants were more likely to be used by younger students, with use dropping off with age. The average age of initiation was 11.92, compared with 12.25 for marijuana and 12.56 for first getting drunk. The greatest increase of use occurred between 11 and 13 years. If inhalant use had not occurred by age 13, it likely never would, in marked contrast to the pattern for marijuana and alcohol. About 15 percent of 4th-6th graders had already had some experience with inhalants. Use at the earlier ages appeared to have consistently increased from 1980 to 1985. This may have been due to a "ripple effect" in which the radical increases in use among 12th graders up to 1980 and among 8th graders up to 1982 were now occurring among elementary students. As use declines among older children, it is likely that it will also ripple downward.

Rates of use for 8th-grade females were still nearly the same as males, but among seniors there was a distinct lower lifetime prevalence rate reported by females than males, probably because female users had dropped out of school by that time or because females reduced their use very quickly after 8th grade.

Conclusions/Implications. There is some basis for the perception that Indian youth are more susceptible to inhalant use than their non-Indian peers. The decrease in lifetime prevalence for inhalants is encouraging and consistent with the important decreases found for alcohol and marijuana through 1983, and smaller decreases for six other drugs, found by Beauvais, Oetting, and Edwards (1985). This may reflect the general shift toward lower drug use found by the national survey of high school seniors. But the higher rate of recent use among both 8th- and 12th-grade Indians than among non-Indians is cause for concern. Given the evidence for an earlier initiation in use for inhalants than for other drugs, prevention efforts need to start at an early age. There is also a significant number of school dropouts who are likely to be chronic inhalant users. Finally, prevention efforts need to take into consideration the larger number of female users.

Bell, Ralph. 1988. USING THE CONCEPT OF RISK TO PLAN DRUG USE INTERVENTION PROGRAMS. Journal of Drug Education 18(2):135-142.

Risk can be defined as the probability of an event (including drug use) occurring in a population of interest. If drug prevention and intervention programs are to be successful, they must be targeted at high-risk population groups. It has been speculated that one reason for the failure of substance abuse education programs has been the failure to direct them at the correct target populations. It is also important to target the proper populations to ensure the most efficacious use of money during a period of declining resources. These problems might be avoidable if programs were directed at high-risk groups. A two-step, multilevel, multivariate analysis strategy is presented to estimate high-risk population groups in high-risk geographic areas. Its successful use could result in better data for decision makers to make informed judgments about developing intervention programs. This method will help identify high-risk individuals located in high-risk areas in a systematic manner, so that decision makers can strategically locate programs where they will be most effective. It may be that different types of programs are more suitable in one situation or location or population than in another. Although the concept of risk is not new, it has seldom been defined in terms of the probability of using drugs. By defining and estimating risk as a probability and subsequently a log-odds ratio, a better understanding of program targeting can be achieved.

Binion, Arnold; Miller, C. D.; Beauvais, F.; Oetting, E.R. 1988. RATIONALES FOR THE USE OF ALCOHOL, MARIJUANA, AND OTHER DRUGS BY EIGHTH-GRADE NATIVE AMERICAN AND ANGLO YOUTH. International Journal of the Addictions 23(1):47-64. 17 refs.

Rationales for alcohol, marijuana, and other drug use were examined among 25,000 8th-grade Indian and non-Indian students who voluntarily responded to a self-help drug use survey administered during the 1983-1984 academic year. The Indian students were from two reservations in the western United States and non-Indians from three small rural towns.

Rationales on the survey were developed, a priori, to sample four main areas: social situations, independence, dealing with emotion, and feeling drugged. Thirteen rationales were generated from these four main groups. The rationales contained 34 justification items, with two or three items per rationale. Internal consistency reliabilities for the 13 rationales ranged from .72 to .86 for Indians and from .74 to .90 for non-Indians.

Findings. There were important differences in the reasons for drug use given by Indian and non-Indian 8th graders. These reasons differed according to the drugs used and ethnic group membership. Differences were found between reservation Indian and rural non-Indian rationales for alcohol, marijuana, and other drug use. A majority of both Indian and non-Indian 8th graders indicated that they used drugs to enhance altered and pleasant affective states, for excitement, for parties, to be with friends, to relax, and to handle negative affective

states including worries and nervousness. Indian youth also used drugs to cope with boredom. Surprisingly, unlike non-Indian youth, there was a paucity of rationales for the use of drugs other than alcohol and marijuana by Indian students. It was unclear what rationales are used by those who use other drugs. This suggests that Indian youth may not have developed a coherent cognitive framework that justifies this particular deviant behavior. The interrelationships between these rationales produce a situation where powerful positive and negative reinforcements are simultaneously present.

Conclusions. Interventions will have to be impactful and pervasive in order to counter the many positive and negative rationales associated with drug use. They will have to produce positive affective states, facilitate social interactions to fulfill the developmental needs of young adolescents, and enable the young adolescent to cope in constructive ways with negative affective states. Interventions will have to be multifaceted and include: (a) group and individual approaches; (b) social skills training and opportunities to be with other youth in a social setting; (c) training to cope with anxiety, nervousness, and anger; and (d) support systems for dealing with feelings of being unloved, unwanted, and lonely. It would also appear that the combined efforts of families, schools, churches, social agencies, and other programs will be required in order to offset the positive experiences associated with drug use among 8th graders.

Carpenter, Richard; Lyons, C.A.; and Miller, W.R. 1985. PEER-MANAGED SELF-CONTROL PROGRAM FOR PREVENTION OF ALCOHOL ABUSE IN AMERICAN INDIAN HIGH SCHOOL STUDENTS: A PILOT EVALUATION STUDY. International Journal of the Addictions 20(2):299-310. 34 refs.

A peer-managed self-control program as a secondary prevention intervention to teach responsible drinking was pilot tested with 30 American Indian teenagers from 13 tribes attending a single high school who were assessed at high risk because of staff-perceived emerging drinking problem. Students were randomly assigned to one of three treatment groups incorporating combinations of self-monitoring, peer-assisted self-control training, and alcohol education. Each group was assisted by two peer counselors. Followups were conducted at 4, 9, and 12 months posttreatment. The three treatment groups were compared using one-way analyses of variance, including age, alcohol knowledge, self-esteem, and attitudes toward abstinence. Self-report data were corroborated by breath tests and official records.

Findings. Significant decreases were observed in quantity and frequency of drinking and in peak blood alcohol levels. These improvements were maintained at all posttreatment followups through month 12. No differences among the treatment groups were found, indicating that minimal and full program interventions had comparable effects.

Conclusions. Although the data have shortcomings (they are based primarily on self-reports and a small sample), they provide encouragement for further exploration of the behavioral self-control preventive intervention model. Further consideration of the model is merited for several reasons: (1) Programs are most often directed toward those who already drink, and who are unlikely to respond to methods emphasizing a disease model or advising permanent abstinence. (2) The present approach, focused on self-control, provides specific guidelines and procedures for achieving goals of responsible drinking. (3) Self-control training appears to be effective when offered in educational, self-help, or other cost-effective intervention formats that are highly amenable to prevention applications. Important factors in successful implementation include careful training and selection of peer counselors, on-going program evaluation, and participation of the whole community and school administrators.

Edwards, E. Daniel, and Edwards, M.E. 1988. ALCOHOLISM PREVENTION/TREATMENT AND NATIVE AMERICAN YOUTH: A COMMUNITY APPROACH. Journal of Drug Issues 18(10):103-115. 12 refs.

The serious problem of drinking in pre-adolescent and adolescent Indian youth is examined in the light of specific community contexts; poor socioeconomic conditions; family, school, and peer-group pressure; alienation; and personal adjustment problems. Community approaches for combating problems of alcohol abuse among Native American youths should involve adolescents, their families, and informal and formal organizations in both primary and secondary prevention programs. Primary prevention interventions promote alternative activities to drinking and emphasize positive feelings of self-esteem and identity. Secondary prevention alcoholism programs provide information regarding alcohol while encouraging responsible decision making regarding drinking behaviors.

Task groups can be used to reinforce and support secondary prevention programs. They can assist adolescents who have had some experience with drinking behaviors to learn more about the influence alcohol has on their total functioning and can provide them with skills to make responsible decisions regarding drinking behaviors. Such groups could also be important in meeting treatment needs and in effectively establishing and reinforcing tribal and Indian values

systems related to alcohol. Research suggests that family communication and community-based approaches that deal with the unique contextual framework of the particular area are helpful in engendering individual, group, and societal pride.

Proposed methodologies include community-specific questionnaires, which are developed with input from adult tribal members, mental health agencies, community institutions, and tribal governmental agencies. The results of the questionnaires are subsequently tabulated, interpreted, and reported back to the community.

The Ignacio, Colorado, Indian Youth "Drug Busters" and the Chevak Village Youth Association of Alaska are two organizations that have effectively applied task group concepts in specific communities; the Intermountain Intertribal project combined peer-group and educational counseling with a community focus.

Gilchrist, Lewayne D.; Schinke, S.; Trimble, J.E.; and Cvetovich, G.T. 1987. SKILLS ENHANCEMENT TO PREVENT SUBSTANCE ABUSE AMONG AMERICAN INDIAN ADOLESCENTS. International Journal of the Addictions 22(9):869-879. 42 refs

The use of skills enhancement with American Indian youth has seldom been evaluated, although literature in several areas supports the use of a skills enhancement model for helping Indian youth delay the onset of substance use, minimize the extent of their use, and reduce the chances of permanent disability as a consequence of use. A culturally tailored 10-session skills enhancement program was provided between 1984 and 1985 to 102 Indian youth (mean age=11.34; 49 percent female) living in seven urban and rural sites in the Pacific Northwest. Subjects completed screening for demographic information and current substance use, including alcohol, marijuana, tobacco, and inhalants. Subjects were randomly assigned by site to intervention or control conditions. Demographic and baseline drug-use data for the three intervention sites and the four control sites (one urban and two rural) were comparable. Subjects at the experimental sites received ten 60-minute skills enhancement training sessions. Preventive intervention was delivered by a two-person team consisting of one Indian research staff member and selected indigenous teachers, school counselors, and drug and alcohol treatment staff members. Pretest, posttest, and six-month follow-up measures quantified variables in self-esteem, drug knowledge and attitudes, and interpersonal behavior.

Findings. At six-month followup, intervention condition subjects had better knowledge of drug effects, better interpersonal skills for managing pressures to use drugs, and lower rates of alcohol, marijuana, and inhalant use, compared with test-only control condition subjects. Intervention condition subjects were less likely to label or consider themselves users of these substances. Consumer satisfaction feedback regarding the program's sensitivity to American Indian culture, immediate applicability to life, and prevention effectiveness also supported the value of the skills enhancement approach. However, no differences between the intervention and control groups were found for self-esteem or for drug attitudes.

Two possibilities may explain the program's unexpected failure to affect self-esteem scores: (1) for Indian youth, the methods reduced substance abuse through some other pathway than increasing self-efficacy and self-esteem; or (2) more likely, the measure of self-esteem in the study was too generic to pick up changes in self-efficacy and substance-abuse-specific self-esteem that did occur.

Conclusions. Conclusions are limited because of the small sample size and short follow-up period, but data indicate that this approach can delay onset of substance abuse in some Indian adolescents. Program planners and prevention researchers can build on this data in developing skills-based substance abuse prevention programs (Alaska, the Southwest, and other areas of high Indian population are recommended). Longitudinal data and larger sample are needed in future research.

Globetti, Gerald. 1988. ALCOHOL EDUCATION PROGRAMS AND MINORITY YOUTH. Journal of Drug Issues 18(1):115-129. 81 refs.

School alcohol-education strategies and the unique problems that arise in their implementation among minority youth are discussed. Research relative to the drinking behavior of minority youth, as well as alcohol-abuse prevention programs for these youth, has been largely neglected. Moreover, the existing data on both of these subjects are limited in that they either treat minority youth as a homogeneous entity or apply a White middle-class curriculum to prevention activity. Examination of four existent alcohol education strategies--fear, cognitive, developmental, and sociocultural--reveals the inadequate attention given to the factors that contribute to alcohol problems.

Directed research on abuse in minority youth has been impeded by a wide variety of problems: dated, counteractant reactions (e.g., the "forbidden fruit" syndrome) arising from use of fear strategies; faulty decisions based on misconceptions and assumptions; lack of empirical data and funding; the unavailability of evaluative methodology to validate program effectiveness; underestimation of exigent environmental factors; difficulty of assessing the long-term effects of corrective sociocultural approaches; misdirected

conceptual models; and misguided perspectives that treat the matrix of social problems as a homologous, monolithic whole.

Curricula derived from the developmental and the sociocultural models appear most applicable to minorities. More attention must be paid to the psychological realities that emerge from the culture-specific patterns of maladjustment in minority youth. Alcohol prevention strategies must be coordinated with the implementation of community strategies and activities designed to alleviate concomitant, malignant social conditions. Demonstrations of strategic efficacy must be achieved if support is to be maintained.

Maddahian, Ebrahim; Newcomb, M.D.; and Bentler, P.M. 1988. ADOLESCENT DRUG USE AND INTENTION TO USE DRUGS: CONCURRENT AND LONGITUDINAL ANALYSES OF FOUR ETHNIC GROUPS. Addictive Behaviors 13:191-195. 8 refs.

Concurrent, longitudinal analyses were used to correlate associations between "intention to use" and "use" of cigarettes, cannabis, alcohol, nonprescription drugs, and hard drugs among a sample of White (64 percent), Hispanic (13 percent), Black (15 percent), and Asian (8 percent) adolescents (n=847) in 11 schools in Los Angeles County. Although ethnic differences in substance use are well documented, little attention has been given to explaining these differences in terms of cognitive factors such as intention. Assuming that both ethnicity and intention are value-related individual attributes, one can expect differences among ethnic groups on their intention to use substances. To this end, mean differences between ethnic groups were examined on their reported intentions, current use, and future of drugs.

Findings. There were significant differences for intention to use cigarettes and hard drugs. Black students had a higher intention to smoke cigarettes than either Whites or Asians. Hispanics had more intention to smoke cigarettes than either Whites or Asians. Hispanics had more intention to smoke cigarettes than Asians. Whites reported a higher level of intention to use hard drugs than Asians.

Significant and consistent relationships between current level of use and intention of use were found for all ethnic groups, except among Asians, for hard drugs. However, these measures varied considerably among ethnic groups, with a range from .17 for Blacks on use of nonprescription medications to .69 for Hispanics on alcohol consumption. There was a higher association between intention to smoke cigarettes and smoking behavior for Hispanics compared to Blacks. This pattern was also evident for alcohol, cannabis, and non-prescription medications. Whites showed the same pattern as Hispanics when compared with Blacks, except for cigarettes.

The degree of association between intention and use, as well as ethnic differences, gradually decreased over time.

Partialling out the effects of previous experimentation decreased the contribution of intention as a predictor of future drug use to a nonsignificant level for Hispanics, to a moderate degree for Black and Asians, and remained significant for Whites, particularly for cigarettes and hard drugs.

Conclusions. The findings support the importance of attitudes and cognitive factors as a first place for prevention programs and early drug education, especially for Blacks and Hispanics on smoking cigarettes. The evidence that initial differences between ethnic groups decreases over time supports the importance of including family, background variables, cultural, and ethnic values in the early stages of drug prevention programs. It is possible that as students mature in high school many will join the mainstream of the society in terms of their norms and values, and thus ethnic differences may decrease. Weaker associations between measures of intention and use for Hispanics, compared with stronger relationships for other groups, is an indication of ethnic differences in factors influencing adolescents' drug use patterns. While reducing intention to use drugs will reduce future drug use to some extent for all ethnic groups, for Hispanics other alternative strategies may be more effective.

May, Philip. 1986. ALCOHOL AND DRUG MISUSE PREVENTION PROGRAMS FOR AMERICAN INDIANS: NEEDS AND OPPORTUNITIES. Journal of Studies on Alcohol 47(3):187-195. 63 refs.

General statistics indicate that alcohol and drug use vary tremendously from one tribe to the next. Many local officials, however, are not aware of the extent of the problem. There is an overwhelming need to define the nature of the problem accurately with regard to specific risk in populations and subpopulations for effective intervention. Alcohol-related morbidity and mortality statistics indicate that the consequences of acute misuse among young Indians, which ranges from episodic to prealcoholic, takes a greater toll in death and injury than does chronic misuse. Regarding susceptibility, the evidence indicates that lack of adequate social and personal skills increases the likelihood of eventual alcohol and substance misuse, particularly in adolescence and the early twenties.

Because of the unique social and cultural circumstances in which many Indians live, an aggressive series of programs needs to be launched. The current status in many communities dictates intervention at

three levels. First, high mortality and morbidity rates must be reduced through creative and innovative intervention with the social and physical environment. Alcohol legalization and other issues are discussed as distinct possibilities. Second, educational programs are needed to elevate the knowledge of American Indian communities about alcohol and drug misuse. Education should be specifically oriented to improving ability to deal with early developmental problems that might lead to misuse. Third, American Indian rehabilitation programs need to be provided with more resources and need to be carried out more effectively. Increased use of both traditional tribal strengths and modern treatment modalities is promising. Rehabilitation programs may be even more important in the future if mortality reduction programs are successful.

The major target of the educational programs should be youth. Furthermore, because Indian alcohol and drug misuse is related to uncertainty and integration problems, "a major, if not the dominant, component of the youth-oriented prevention programs should emphasize a social learning model that builds self-esteem and coping skills in individuals and their peer groups. Using various techniques such as peer participation and value reinforcement, the goal of these programs must be the building of self-esteem and confidence while imparting alcohol and drug information" (p. 192). However, before these programs can be effective, the community as a whole must be educated to overcome their conservatism and sensitivity to this issue.

Newcomb, Michael D.; Maddahian, E.; Skager, R.; and Bentler, P.M. 1987. SUBSTANCE ABUSE AND PSYCHOSOCIAL RISK FACTORS AMONG TEENAGERS: ASSOCIATIONS WITH SEX, AGE, ETHNICITY, AND TYPE OF SCHOOL. American Journal of Drug and Alcohol Abuse 13(4):413-433. 34 refs.

Evidence indicating that there are numerous pathways to substance use has led several researchers to propose a risk-factor approach that hypothesizes that with increased exposure to those factors or influences known to promote or generate drug use, there is an increased chance of drug use or abuse occurring. Conversely, exposure to few risk factors should decrease the probability of drug involvement. The number of risk factors should be monotonically, perhaps linearly, related to the likelihood of substance initiation and involvement.

To evaluate this model, 12 risk factor variables were selected and tested on data obtained from 7th-, 9th-, and 11th-grade students (n=2,926) in the Ventura County (California) School District. Differential exposure to and impact of risk factors on drug-taking behaviors were tested for differences by sex, age, ethnicity, and type of school attending. The 12 factors were selected on the basis of a review of the literature and previous research conducted on drug use which identified them as significant antecedents to drug use initiation or increased drug involvement. In developing the risk factor index, each factor was determined to be associated independently with drug use. These factors were:

early alcohol intoxication
perceived adult drug use
perceived peer approval of drug use
perceived parent approval of drug use
absence from school
poor academic achievement
distrust of teacher drug knowledge
distrust of parent drug knowledge
low educational aspirations
little religious commitment
emotional distress
dissatisfaction with life

Findings. The 12 variables explained over 50 percent of the variance in a measure of general drug use, but lacked effectiveness in accounting for different types of drugs. A unit-weighted, summed index of risk factors was linearly related to use and abuse (heavy use) of cigarettes, alcohol, cannabis, cocaine, hard drugs, and a composite substance-use score.

Patterns of Use. For the sample as a whole, the most widely tried substance was alcohol (77 percent) and the least was cocaine (14 percent). Males reported greater use of cannabis, alcohol, and drug use in general than females, who reported more cigarette use. All substances, except hard drugs, differ significantly in use by ethnic group, with the differences falling into a general pattern of American Indians and "Other" ethnics reporting the most frequent use of drugs, followed by Whites, Blacks, Hispanics, and Asians. Significant mean differences were found for all substances except alcohol by school type, with continuation school students reporting higher frequency of use of all drugs except alcohol.

Patterns of Risk Factors. There was no significant difference on the risk-factor index by gender; the number of risk factors increased significantly by grade level; American Indian and "Others" were exposed to significantly more risk factors than other ethnic groups; and students in continuation school had a significantly higher risk factor.

Association Between Risk Factors and Substance Use. The risk factor index was not equally effective at accounting for different types of drugs: it was most strongly related to alcohol and cannabis use; least strongly to cocaine. The only significant gender

difference was a larger risk-factor correlation on cocaine use among males than females. The only significant differences by grade were significantly lower correlations between risk factors and cannabis use and cocaine use among 7th-grade students than 9th or 11th. Regarding ethnicity, there was no differential impact of risk factors on cigarettes, alcohol, or hard drugs. There were significantly smaller correlations between cannabis and the risk-factor index for Asians compared with American Indians, Whites, or "Others." Asians had a smaller correlation with cocaine use than Hispanics, White, or "Others." Whites had a significantly larger correlation with composite substance use than Asians or Hispanics. All correlations for the continuation students were larger than regular-school students.

Risk-Factor Associations. Dichotomizing between abstainers/occasional users and abusers, for all substances, showed a marked increase of abuse by increasing number of risk factors. The index was strongly related to the frequency of heavy use or substance abuse. Seventy-one percent of those with seven or more risk factors abused at least one substance; they were from four to six times more likely to be substance abusers (depending upon the specific drug) than the general sample.

Conclusions/Implications. The results of this study provide further evidence for the usefulness of the risk-factor approach. The study's examination of four demographic characteristics found important status group differences in regard to drug use levels, exposure to risk factors, and the impact of this exposure on drug-taking behaviors.

Oetting, E.R.; Beauvais, F.; and Edwards, R. 1988. ALCOHOL AND INDIAN YOUTH: SOCIAL AND PSYCHOLOGICAL CORRELATES AND PREVENTION. Journal of Drug Issues 18(1):87-101. 33 refs.

In an examination of psychosocial correlates of heavy drinking and their implications for prevention, young Native American heavy alcohol users (ages 12-16) were matched with non-users. Two subsamples were identified, one male and one female, from alcohol-using youth in a total sample of 1,772 Indian youth living on reservations. The sample was taken from 1985-86 anonymous surveys that were administered to 7th- through 12th-grade American youth in 20 different schools on four Indian reservations.

Findings. Alcohol users did not have more emotional problems, did not experience less alienation, or did not feel less self-confident or less socially accepted than non-users, but they did use other drugs and were more deviant. Alcohol users came more often from broken families, felt less family caring and had fewer family sanctions against substance abuse, had poorer school adjustment, had less hope for the future, and had more friends who encouraged alcohol and drug use.

Use of alcohol and other drugs was "inextricably linked...suggesting that there are common dynamics underlying the use of all substances" and that prevention programs aimed at only alcohol use or other drug use would be incomplete.

Conclusions. Preventive programs should start very early and should focus on increasing family strength, improving school adjustment, providing opportunities for the future, breaking up deviant peer clusters, and building peer clusters that discourage alcohol and drug use. Most important, programs must take into account the youth's peer clusters. A "Just Say No" approach will work only if it influences the internal norms of the peer cluster and does not imply that adults are "pushing" drugs on kids.

Programs that are based on increasing young people's identification with Indian culture could have some effect, but peer cluster theory suggests that they will have to somehow stop the formation of alcohol-using or otherwise deviant peer clusters and encourage the formation of peer clusters that provide strong sanctions against use. Such an approach has been lacking in "cultural" programs.

Programs based on the following "good ideas" will fail: simple self-esteem improvement; alcohol is used as a substitute for social acceptance; alcohol is taken by depressed, anxious, or otherwise emotionally disturbed youth; use of "socially acceptable" people to reach deviant youth; use of cultural ceremonies but do not change peer clusters; and providing recreational or social activities that do not completely exclude alcohol.

Okwumabua, Jebose O., and Duryea, E.J. 1987. AGE OF ONSET, PERIODS OF RISK, AND PATTERNS OF PROGRESSION IN DRUG USE AMONG AMERICAN INDIAN HIGH SCHOOL STUDENTS. International Journal of the Addictions 22(12):1269-1276. 13 refs.

A sample of 277 Native American students (grades 7 to 12) was surveyed to examine the age of onset, patterns of progression, and periods of risk for drug use. Drawn from various tribes (including 19 Pueblo tribes, Navajo, Jicarilla, Mescalero Apache, and others), they attended a Native American boarding school located in a major metropolitan city in the Southwest. There were approximately the same number of males and females, and ages ranged from 11 to 19 years. The school was known for its respect for, and participation in, Native American tradition and ritual. Data were collected in the fall of 1985 via a teacher-administered, voluntary self-report questionnaire that included demographic and drug-use information.

Findings. Of the total sample, 81 percent reported having tried cigarettes, 79 percent drinking alcohol, 80 percent smoking marijuana, 44 percent sniffing solvents, and 7 percent using cocaine. About 19 percent reported never having tried any of these five drugs.

The period between ages 10 and 13 is related to initiation of drug use. Many began smoking cigarettes and marijuana, drinking alcohol, sniffing solvents, and using cocaine as early as 10 years of age. The period of risk for onset of marijuana was ages 10-14; solvent sniffing, 10-13; cocaine, 13-15.

Patterns of progression in drug use corroborated conclusions from previous studies which proposed that patterns of drug use among adolescents generally follow a specific path and sequence. There was a sequential progression with chronological development from "quasi-legal" (cigarettes) to a combination of "quasi-legal" and illicit drug experimentation (alcohol and marijuana) and then progressing to harder illegal drugs (cocaine). This is consistent with the pattern found in the mainstream adolescent population, though different data may be available in which no such progression exists.

Conclusions. Caution must be exercised in extrapolating the findings to the general Native American population because of the small sample size, the urban location, and the self-report format.

The findings suggest that prevention of early involvement with "quasi-legal" drugs may be efficacious in reducing the probability of future use. Drug-prevention-education programs should be targeted at reducing the risk of beginning the use of drugs rather than at reducing actual use among older users.

Schinke, Steven; Bebel, M.Y.; Orlandi, M.A.; and Botvin, G.J. 1988. PREVENTION STRATEGIES FOR VULNERABLE PUPILS: SCHOOL SOCIAL WORK PRACTICES TO PREVENT SUBSTANCE ABUSE. Urban Education 22(4):510-519, January. 13 refs.

Drawing on original data and other research on tobacco and drug use, this article describes how school social workers may execute preventive interventions with vulnerable pupils.

The tobacco-use attitudes and practices of 5th- and 6th-grade students from blue-collar families in western Washington schools were tested and sampled (n=1,281). Pupils were randomly divided by school into skills, discussion, and control conditions. All youths were posttested, then retested semiannually for two years. Pupils in the skills intervention groups showed lower rates of smoking at 6-, 12-, 18-, and 24-month follow-ups than did pupils in the other groups. Across conditions, semiannual measurements showed rising tobacco use. Results indicated that school social workers can design, implement, and evaluate preventive interventions aimed at reducing the onset of smoked and smokeless tobacco use.

The vulnerability of Native American youth to drug use is illustrated by surveys taken in the Pacific Northwest. This data indicate that 38 percent of Indian and 13 percent of non-Indian youth become intoxicated with alcohol weekly; 27 percent and 8 percent, respectively, are weekly drug users. The effectiveness of prevention intervention based on a bicultural competence model was tested among 61 Native American pupils. Bicultural competence allows pupils to integrate majority culture values, norms, and behaviors without losing their identification with and respect for traditional values. Those randomly assigned to the intervention condition were taught problem-solving, communication, and social support competence skills by Native American and majority culture social workers. At the six-month follow-up, the treatment group had higher scores than the no-intervention control group on the drug knowledge measure and on ratings of self-control, alternative suggestions, and assertiveness, and reported less use of smoked and smokeless tobacco, alcohol, marijuana, and inhalants during the previous 14 days.

Conclusions. Results of the reported studies modestly support skills intervention. Indications are that leader-modeled strategies based on cognitive and behavioral methodology may have increased effectiveness in the future activities and priorities of school social workers.

Schinke, Steven P.; Botvin, G.J.; Trimble, J.E.; Orlandi, M.A.; Gilchrist, L.D.; and Locklear, V.S. 1988. PREVENTING SUBSTANCE ABUSE AMONG AMERICAN-INDIAN ADOLESCENTS: A BICULTURAL COMPETENCE SKILLS APPROACH. Journal of Counseling Psychology 35(1):87-90. 33 refs.

More than other Americans, Indian and Alaska-Native children and adults suffer from such substance-related problems as school-failure, antisocial behavior, unemployment, criminal arrest, and increased morbidity and mortality. However, there are significant gaps in the science of preventing substance abuse in American-Indian adolescents. An intervention approach to preventing tobacco, alcohol, and other drug abuse with young American-Indian people based on bicultural theory and social learning principles was tested.

Subjects were 137 American-Indian adolescents from two western Washington Reservation sites. Before, immediately following, and six-months after subjects received intervention, all of the subjects completed four measures: a knowledge test, attitude scale, interactive behavior test, and substance-user reports. After

pretesting, subjects were randomly divided by reservation site into prevention condition (PC) and control conditions (CC). PC subjects participated in 10 group intervention sessions to learn bicultural competence skills, while subjects assigned to the control condition received no preventive intervention. PC subjects were instructed in and practiced communication, coping, and discrimination skills.

Findings. The data lent modest support to a bicultural competence skills intervention approach for preventing substance abuse among American-Indian youth. Within a controlled design, American-Indian youths who received such skills-based preventive intervention showed greater posttest and follow-up improvements than did American-Indian youths in a non-intervention control condition on measures of substance-related knowledge, attitudes, and interactive abilities, and on self-reported rates of tobacco, alcohol, and drugs use.

Conclusions. The data must be interpreted cautiously, since substance-use rates may be biased. The absence of a placebo or comparison control condition further precludes definitive conclusions about the efficacy of bicultural competence skills intervention. Nonetheless, the study represents a pioneer step toward testing bicultural competence approaches to preventive intervention.

Schinke, Steven; Palleja, J.; Schilling, R.; Moncher, M.; Orlandi; M.; and Botvin, G. 1988. PREVENTING SUBSTANCE ABUSE AMONG MINORITY GROUP ADOLESCENTS: APPLICATIONS OF RISK-BASED INTERVENTIONS. Practice Applications 4(4):1-16. 56 refs.

One of the significant gaps in substance abuse prevention is the lack of guidelines for intervention design, targeting, and delivery with ethnic-racial minority populations, particularly adolescents. Part of the problem is the absence of appropriate terminologies for at-risk adolescents. New definitions are offered to improve the precision of intervention development and outcome research, drawing on evidence from minority adolescents. Not only are many of these youth at risk for substance abuse, but they are also underresearched.

The traditional definition of prevention in terms of primary, secondary, and tertiary are inadequate for prevention efforts with ethnic-racial minority adolescents. They represent conflicting concepts and fail to guide current programs, research, and policy, and imply a generic epidemiologic justification which does not account for cultural and racial differences in populations at risk.

Gordin has suggested new definitions of intervention levels: universal (i.e., desirable for everybody); selective (i.e., recommended only when the individual is a member of a population subgroup at above-average risk); and indicated (i.e., advisable only for persons who manifest a risk factor and are more likely than not to experience problems without intervention). Indicated prevention interventions are called for when members of the target client, patient, or subject group are found to actually manifest precursor signs of the objective for prevention intervention.

American Indian adolescents are an example of this level of prevention. Research strongly points to a precocious onset of and subsequent dependence on alcohol and psychoactive substances among American Indian people in many tribes. This technique was tested on 61 adolescents who were taught problem-solving, communication, and social support competence skills by indigenous Native American health educators using a bicultural model (Schinke, Bebel et al. 1988). At followup, the intervention group reported less substance abuse than the control group.

Despite the success of the indicated biculture technique among Native American youths, the outcome effects were necessarily moderated by the highly specific nature of the indicated prevention intervention. "The bicultural competence model, for example, is most applicable to Native American adolescents and may not be applicable at all to other ethnic-racial American groups." The specificity of indicated efforts may restrict their generalizability and may insidiously label a group as in need of special intervention. Nevertheless, culturally-tailored preventive interventions hold particular promise for ethnic minorities because they experience vastly different problems than the general population and reside largely in defined areas.

Trimble, Joseph E.; Padilla, A.; and Bell, C. 1987. DRUG ABUSE AMONG ETHNIC MINORITIES. NIDA Office of Science Monograph. Washington, D.C.: GPO. DHHS Pub (ADM)87-1474. 156 refs.

Data presented at a 1983 meeting to review research on drug use and prevention among ethnic minorities, sponsored by the National Institute on Drug Abuse, are summarized. The report focuses on four ethnic groups: Blacks, Native Americans, Asian and Pacific Americans, and Hispanic Americans. Characteristics of each group are identified, followed by a synthesis of major findings in each community. This summary focuses on the information as it relates to minorities in general and Native American youth in particular.

"Only limited information is available on the prevalence of drug abuse among ethnic minority populations, as well as etiologic and developmental factors that may play a role in determining their vulnerability to drug use" (p. ix). This scarcity of

information is particularly of concern since epidemiological survey data indicate that Blacks and Hispanics are overrepresented in alcohol and drug treatment programs and drug-related emergency hospital admissions, as well as in selected criminal justice actions. Furthermore, the data indicate an increasing trend in minority drug abuse.

There is a need for more current and systematic data in all areas of epidemiology, treatment, and prevention. At best, current information is uneven. All researchers emphasize the need for more culturally sensitive designs and measures beyond "white" versus "nonwhite" comparisons. Despite the diversity among these groups, "repeated identification of certain core problems associated with integration into majority Western culture helps to indicate research needs." "Further, the presures of acculturation in changing environmental contexts may predispose individuals of varying ages and socioeconomic statuses to drug abuse in previously unconsidered ways" (p. 1).

American Indians. Although alcohol and other drug abuse is believed to be a significant problem among American Indians, very little is known about its correlates or consequences. Despite important work that has been done, several critical gaps in our knowledge make it extremely difficult to assess the validity of the competing explanations of Indian substance abuse and efforts to prevent it. There is a significant lack of studies in an urban setting. Most of the information we do have deals with the Southwest and the Navajo only. We also know far more about males than females, about adults than youths. The "significant lack of specific studies on alcohol and drug abuse among Indian adolescents extends to the area of substance abuse prevention." Many programs are still in stages of development. "While some of the educational efforts are demonstrating effectiveness among non-Indian youth, there is little evidence that educational strategies are effective with Indian youth regardless of tribal affiliation or residential status."

"The available material is marked by a lack of detail and inconclusiveness that precludes its use as evidence bearing upon the relationships between substance abuse, treatment outcome, psychosocial problems, and tribal background. In addition to being inadequate for theoretical purposes, the available material is also inadequate for practical purposes. There have been no published accounts of Indian alcoholism treatment programs that would permit other Indian groups establishing new programs to learn from the successes and failures of their predecessors" (p. 5).

Summary and Conclusion. "At present our knowledge of the drug and alcohol use and abuse patterns among American's ethnic minority populations is at best spotty. Much of what we know is limited to epidemiologic studies among youth primarily at the adolescent stage of development. Little or no information exists describing and documenting the use and abuse patterns among ethnic minority adults, elderly, refugees, homeless, pregnant women and families as a unit. Yet what we do know provides us with a portrait of a very serious and complex set of problems" (p. 35).

The following research questions represent some of the fundamental areas that need immediate action:

- Which drugs are most likely to be used at which ages and under which social circumstances?
- Within an ethnic group, what are the subgroups most at risk and to what extent?
- More attention needs to be paid toward distinguishing ethnic groups and subgroups in future studies.
- What psychological characteristics are associated with drug abuse?
- Alternative measures that are sensitive to cultural differences must be developed to assess the extent and kinds of abuse.
- The efficacy of treatment and prevention strategies with regard to specific target populations needs to be determined.
- To what extent are available prevention techniques differentially effective among different age groups?
- What treatment modalities are available?

Watts, Thomas D., and Lewis, Ronald G. 1988. ALCOHOLISM AND NATIVE AMERICAN YOUTH: AN OVERVIEW. Journal of Drug Issues 18(1):69-86, Winter. 63 refs.

The problem of alcoholism among Native American youth is examined from a historical perspective, highlighting the diverse patterns in traditional and contemporary life which have contributed to this ongoing and growing problem. This complex problem involves cultural, environmental, economic, and many other elements, all best understood in historical context. A Native American "community" is difficult to maintain alongside the "corporatization" of tribes and the infusion of government monies and programs. U.S. government policy, carried on in lieu of attentive observation of cultural, social, and religious differences, has remained myopically unaware of the intensity and complexity of the problem, which appears to have no one, single, concise answer or explanation. Dynamic local community involvement is called for here, as well as a "small is beautiful" theme for both economic and social policies pertaining to Native Americans. This addresses the problem at the local or community level,

encouraging mediating structures for a total effort on local community ground.

Welte, J.W., and Barnes, G.M. 1987. ALCOHOL USE AMONG ADOLESCENT MINORITY GROUPS. Journal of Studies on Alcohol 48(4):329-336. 31 refs.

Past surveys of minority youth drinking behaviors generally have not supported the notion that heavy use is more common among them than Whites, but in many of these studies there were few minorities. A New York state study of the drinking patterns of 27,335 7th-grade through 12th-grade students looked at ethnic differences in how often youth drink, how much they drink, the link between drinking and social problems, and the link between drinking and drug use. Cultural background was found to exert strong influences on how youth drink and use drugs, but many "common-sense notions" about minority drinking were found to be "difficult to maintain." Among American Indian adolescents, a high proportion were heavy drinkers and drug users. Hispanic and White students had intermediate levels of heavy drinking and drug use. Male Oriental students were heavy drinkers, yet female Oriental students were light drinkers. Black students used alcohol and drugs less than these other groups. These low drinking estimates for Black and Hispanic youth may be affected by the school dropout rate in these populations.

The heavy drinking among American Indian youth is difficult to explain in terms of poverty or threats to cultural identity because drinking among Hispanic and Black youths was not unusually high. Therefore, some circumstances unique to American Indians must be responsible.

In all groups, the prevalence of alcohol use was related to heavy alcohol use and heavy alcohol use was accompanied by heavy drug use in the same proportion.

Although not all minority groups drank more than Whites, all did experience more drinking problems when the amount consumed was held constant. This supports the generalization that drinking problems are more easily acquired among lower socioeconomic status groups. This shows that factors beyond mere consumption contribute to alcohol-related problems.

Wright, Roosevelt, and Watts, T.D. 1988. ALCOHOL AND MINORITY YOUTH. Journal of Drug Issues 18(1):1-6. 15 refs.

In an introduction to a special issues of the Journal of Drug Issues on minority youth and alcohol, the paucity of relevant research is stressed. This special issue examines pertinent sociological perspectives and the available data. The three "loaded" nouns of the title are key concerns that must be intensively and holistically addressed before the problem can be understood. Minority youth who use (or abuse) alcohol deal with three realities: using "alcohol," being "minority," and being young ("youth"). All three dimensions are viewed by the larger society with mixed--sometimes hostile, sometimes fearful--reactions. With minority youth we see the disproportionate occurrence of rapid population growth, poverty, school dropouts, criminal justice system clients, and social welfare system clients. We cannot examine alcoholism among minority youth without seriously coming to grips with poverty, education, and life condition. More defined data directed toward the explication of sociological and cultural background and motivational factors must be combined with appropriate theoretical models before these urgent concerns may be properly addressed.

Young, T.J. 1987. INHALANT USE AMONG AMERICAN INDIAN YOUTH. Child Psychiatry and Human Development 18(10):36-46. 56 refs.

According to the U.S. Indian Health Service, substance abuse is the most urgent health problem facing American Indians. Inhalants are among the first drugs used by Indian youth, with first use occurring at approximately the same time as the onset of cigarette smoking. Although prevalence rates vary among Indian subpopulations, Indian youth generally have much higher rates of inhalant use than non-Indian youth. Furthermore, while other drugs are showing a downward trend among Indian youth, inhalant use is increasing slightly. This paper examines this phenomena by reviewing related epidemiological, social, and clinical issues.

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INSTITUTIONAL AFFILIATIONS

The following is a list of the institutional affiliations of the first author of abstracted documents.

Beauvais, Fred, PhD, Psychology Department, Colorado State University, Fort Collins, CO 80523

Bell, Ralph, PhD, Division of Health Administration, Governors State University, University Park, IL 60566

Binion, Arnold, MA, MS, Psychology Department, Colorado State University, Fort Collins, CO 80523

Carpenter, Richard, Florida Mental Health Institute, 13301 North 30th St., Tampa, FL 33612

Edwards, E. Daniel, PhD, Graduate School of Social Work, University of Utah

Gilchrist, Lewayne D., PhD, School of Social Work, University of Washington, Seattle, WA 98195

Globetti, Gerald, PhD; Director, Center for Alcohol and Drug Education, Sociology Department, University of Alabama, Tuscaloosa, AL 35486

Maddahian, Ebrahim, PhD, Psychology Department, University of California, 405 Hilgard, Los Angeles, CA 90024

May, Philip, PhD, Department of Sociology, University of New Mexico, Albuquerque, NM 87131

Newcomb, Michael D., PhD, Psychology Department, University of California, 405 Hilgard, Los Angeles, CA 90024

Oetting, E.R., PhD, Psychology Department, Colorado State University, Fort Collins, CO 80523

Okwumabua, Jebose O., PhD, Department of Health Education, Memphis State University, Memphis, TN 38152

Schinke, Steven P., PhD, Columbia University, School of Social Work, 622 West 113th St, New York, NY 10025

Trimble, Joseph E., PhD, Psychology Department, Western Washington University, Bellingham, WA 98225

Watts, Thomas D., PhD, Professor of Social Work, University of Texas, Arlington, TX

Welte, John W., PhD, Research Institute on Alcoholism, New York State Division of Alcoholism and Alcohol Abuse, 1021 Main St., Buffalo, NY 14203

Wright, Roosevelt, Jr., PhD, Professor of Social Work, University of Texas, Arlington, TX

Young, Thomas J., PhD, Department of Human Development, Haworth Hall, niversity of Kansas, Lawrence, KS 66045

OTHER INFORMATION SOURCES

For further information contact:

Center for American Indian and Alaska Native Mental Health Research, University of Colorado Health Sciences Center, 4200 East Ninth Ave., Denver CO 80262

Indian Health Service (IHS), Alcoholism and Substance Abuse Programs Branch, RM 6A-53A, 5600 Rockville, MD 20857

National Association for Native American Children of Alcoholics, Jo Ann Kaufman, Chair, Seattle Indian Health Board, P.O. Box 3364, Seattle, WA 98114

National Center for American Indian and Alaska Natives Mental Health Research, 4200 East Ninth Ave. C-249, Denver CO 80262

Native American Research Center, Native American Institute, University of Oklahoma, 555 Constitution Ave., Norman, OK 73037